

How to install a Safelok® fitting



1 Cut the pipe square. There is no need to chamfer or lubricate the pipe. Ensure 3 threads are showing.



2 Slide the pipe into the fitting until the first point of contact is felt. There is no need to force the pipe in.



3 Tighten the nut by hand (up to 25mm) or with a wrench.



4 Fitting is fully tightened when the nut butts against the flange of the body.

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The connection you can trust.

Philmac Safelok Easy, Reliable & Safe



The connection you can trust.



Safelok® compression fittings are the fitting of choice for industrial applications, where blue line PE pipe is carrying media such as compressed air, dirty water or chemicals*. Available in sizes up to 110mm and featuring **Slide and Tighten™** technology, Safelok® has been designed with installer safety top of mind. Although designed for industrial applications the Safelok® range works equally well in other traditional PE pipeline applications such as irrigation and infrastructure.



Fitting is pre-assembled ready to use in the open position with 3 threads showing.

Why Safelok®

Safety

• Air Line Safety:

Philmac strongly recommends that fittings should never be disconnected on a live air line. However in the event that work commences on an air line before the air supply is switched off, the use of Philmac Safelok fittings will ensure that a warning is given to the user that the line is live. The user can then switch off the air supply and continue working on the line in a safe manner.

When the nut is tightened on a Safelok fitting, not only is the end of the pipe secured, but it also fully compresses the o-ring and creates a seal. This means that if a user mistakenly works on a live air line and starts to loosen the nut on a Safelok fitting, there will be a loud release of air at the point when two threads are exposed. Importantly, the grip will still be retained on the pipe so the user can take action – retighten the nut and switch off the air supply – preventing an extremely dangerous situation from occurring.

• **Impact Resistance:** Safelok® fittings are made from a high grade of polypropylene to provide significant resistance to impact. In mining conditions risk of impact is always high so the fitting must be tough and durable to provide a long life. At the same time if in the unlikely circumstances that the material should fail due to impact, it will result in a ductile rather than a brittle failure. This means that there is no risk of injury through a fitting explosion when used in a compressed air application.

Fast and easy installation

• **Slide & Tighten™:** No pipe preparation is needed and no force is required to push the pipe past the seal, so installation couldn't be faster or easier. Simply insert the pipe into the fitting until the first point of resistance is felt and then tighten the nut until it butts against the flange of the fitting body. This means that even making a 110mm joint with pipe hanging from the tunnel roof becomes a one man job.



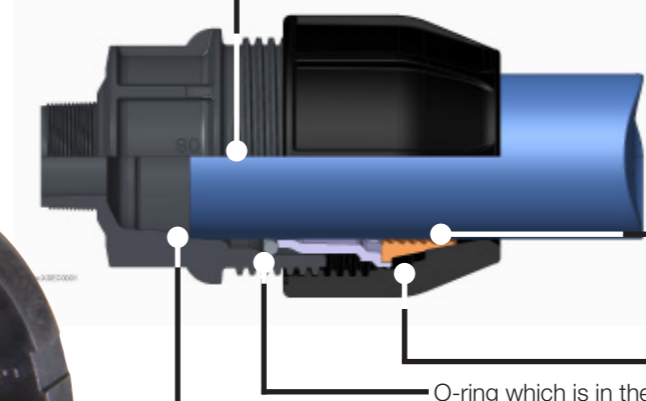
Complete security

• **Visual Stop:** The flange on the body of the Safelok® fitting provides a visual stop to indicate when the nut is fully tightened. This removes any uncertainty from the installation process.

• **No loose components:** Although dis-assembly of the fitting is not required for installation, if the nut is removed there is no danger of losing components as they are all retained within the nut. Losing components in the dark becomes a thing of the past.

• **Chemical Resistance:** Standard compression fittings are supplied with nitrile seals which fail when they come into contact with acids. Safelok® fittings are supplied with EPDM seals which means that the fittings can withstand a wide range of chemicals without having to switch components.

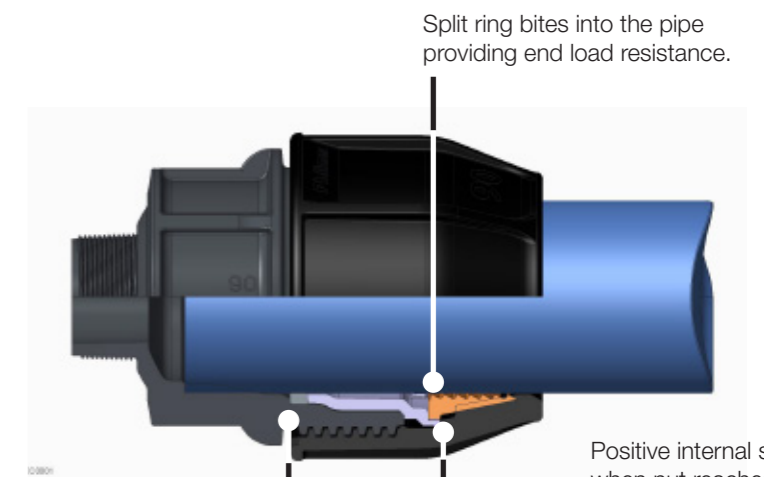
• **Designed to minimise pipe twist:** The fitting has been designed to minimise pipe twist as the nut is tightened. Maximum pipe twist is approximately three quarters of a turn compared to one and a half turns with many other fittings. Pipe twist can impact on not only the connection you have just made but also on the connection at the other end of the line.



The pipe sits against the tapered wedges which minimise pipe rotation.

Clearance between the pipe and fitting allows for easy insertion of the pipe.

O-ring which is in the relaxed position. Split ring which is in the relaxed position.



Split ring bites into the pipe providing end load resistance.

Positive internal stop when nut reaches flange of the body.

Nut, split ring and then spacer has forced o-ring into the compression chamber and then fully compressed it. O-ring compression is achieved by exploiting the mechanical advantage of the nut thread.

High degree of o-ring compression provides more tolerance to scuffed, scratched or oval pipe.

High performance

• Made from advanced thermoplastic materials:

Safelok® is manufactured from lightweight, high performance thermoplastic materials with outstanding impact, chemical, corrosion and UV resistance.

• **Rated to 1600 kpa:** Safelok® fittings are pressure rated to 1600 kpa (PN16) across all sizes.

• **50 year+ design life:** Built to withstand the toughest conditions to ensure longevity and durability, Safelok® fittings have a 50 year+ design life. Complete coverage.

• **Full range:** The Safelok® range is comprehensive; straight and reducing couplers, tees, elbows, threaded connectors, end caps, flange adaptors and shouldered adaptors ranging from 16mm to 110mm.

*Please contact your Philmac representative about chemical compatibility and seek advice prior to use.